Software Trends

Institute for Software Engineering

28th June, 1990

INPUT
YEQAD-2

Notes

Introduction
Environment
Software Markets
Software Development
Conclusion

INPUT
YEQAD-3

Notes

Introduction

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YEQAD-4

Notes

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Market Research and Consultancy

Information Services Industry

15 Years in Business

100 Employees

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MPRE90-2a

Notes

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California, New York, Washington D.C.,
London, Paris, Tokyo

Primary Research Emphasis

Senior Executives Experienced in
Information Services

Forecast from Comprehensive Data Base

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MPRE90-2b

Notes

Environment

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Notes

Fundamental Driving Forces

Key Business Trends:

- Shorter product life cycles
- More customization/specialization
- Narrower market segments
- Higher impact of technology
- More competition from overseas vendors

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MPRE90-380

Notes

Blocking Factors

- Infrastructure gridlock
- Lack of qualified in-house personnel
- Existing applications portfolio
- Organizational response time

Create opportunities for the information services industry

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MPRE90-381

Notes

Where's the Productivity?

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MPRE90-354

Notes

Make vs. Buy

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MPRE90-374

Notes

Limits to Growth

- Absorption rate
  - Implementation
  - Education and training
  - Organization changes
  - Resistance to change
  - Logistics

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MPRE90-367

Notes

Software Markets

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Notes

IS Outsourcing Areas

1. Development
2. Operation and maintenance

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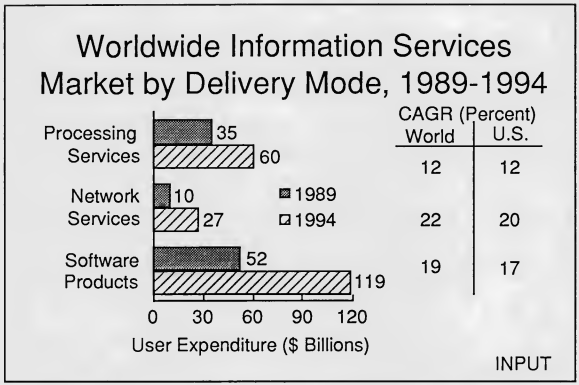
Notes



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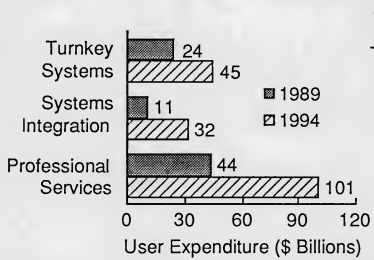
MPRE90-189a

Worldwide Information Service Market by Delivery Mode, 1989-1994



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User Needs

- Application sophistication
- Heterogeneous hardware/environment
- Dynamic connectivity/cooperative processing
- Resource sharing/groupware
- Improved user productivity
- Workstation support
- Image processing
- Improved development process

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Notes

Technology Impacts

- New platforms/devices
  - AS/400, PS/2, parallel processors, supercomputers, RISC
- Networking/LANs
- Improved resources
  - Memory, storage, MIPS
- On-line transaction processing
- Multimedia
- Image/video

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Notes

Software Products Market Issues

- Software complexity increasing
- Development resources decreasing
- Product life cycles
- Capital supply constraints
- Redundant software products

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Systems Operations
Professional Services

- Federal sector growth driven by environment
  - Budget constraints
  - Hiring and salary limitations
- Moderate commercial growth

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Software Development

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Software Issues

- Applications backlog continues to grow
- CASE is not the solution
- People scarcity is increasing problem
- KBS offer some potential for relief

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CASE—User Perspective

- Two problems
  - Existing applications—2/3rds
  - New development—1/3rd
- Slow to become systems engineers
- Caution about CASE

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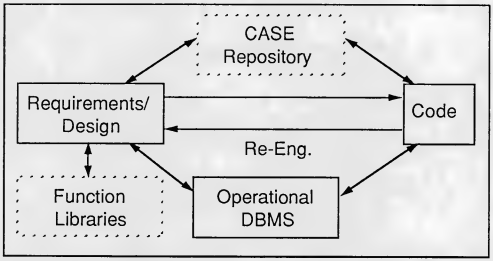
Notes

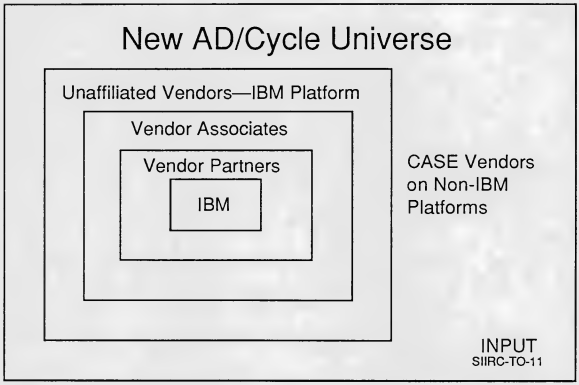
Emerging CASE Environment



Development Management

SIIRC-TO-7

Notes


New AD/Cycle Universe
Unaffiliated Vendors—IBM Platform
Vendor Associates
Vendor Partners
IBM
CASE Vendors
on Non-IBM
Platforms
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SIIRC-TO-11

Notes

Potentially, Biggest Impact Since System/360

- New way of looking at software and applications development
- Standardization, paying the price of complexity and probably, IBM dominance

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SIIRC-TO-26

Notes

Applications Software Products Impact

- Customizing wide open
  - Software vendor
  - Systems integrator (may be identical)
  - In-house

Notes

Less Differentiation in System Development

- Standard methodologies and tools reduce skill gaps:
  - In-house vs. vendor
  - Vendor A vs. vendor B
- Hardware/software without adequate CASE support may be much harder to justify

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Notes

Conclusion

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Notes

Development

- Where performed?
- By whom?

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Other Issues

- Education and training
- Standards and policies

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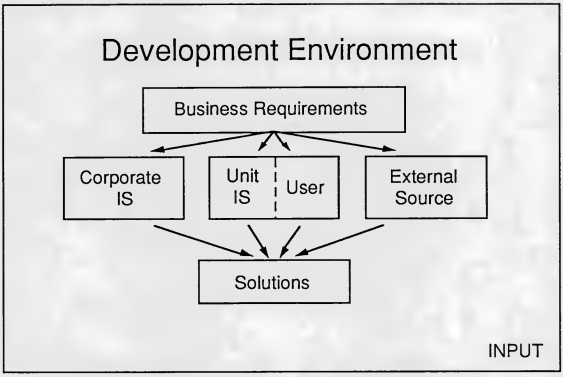
Notes



Notes

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for Tom Winter

SOFTWARE TRENDS

INSTITUTE FOR SOFTWARE ENGINEERING

28th JUNE 1990

INTRODUCTION

ENVIRONMENT.

SOFTWARE MARKETS

SOFTWARE DEVELOPMENT

~~PEOPLE TOOLS~~

CONCLUSION.

~~SOFTWARE TRENDS~~.

V = Should have

INTRODUCTION

MPRE 2a ✓

2b. ✓

SIIRC - TO - 31

CONCLUSION - 35

MPRE90 - 370 ✓

~~PEOPLE ISSUES~~ - 373. ✓

MPRE90 - 15 ✓

ENVIRONMENT

MPRE90 - 380 (CHANGED). ✓

- 381. ✓

- 354. ✓

- 374. ✓

- 367

WMIII - PAC - 8. ✓

SOFTWARE MARKETS.

MPRE90 - 189a ✓

- 189b. ✓

- 61 ✓

- 62 ✓

- 409.

- 100

SOFTWARE DEVELOPMENT.

2COT - 49.

~~MPRE90 - 15.~~

MPRE90 - 686 ✓

SIIRC - TO - 7

TO - 11

-26